Black Holes, Dark Matter, and Dark Energy through the Eyes of Texas

We are living through a remarkable era for astronomy where we are understanding the basic properties of the universe. These include dark energy which determines how the universe expands, dark matter that is the dominate component of mass in the universe, and black holes which are gravity's ultimate triumph. I will present the current state of knowledge for each of these, and discuss future advances primarily coming from the Hobby-Eberly Dark Energy Experiment (HETDEX).